



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0283; Project Identifier MCAI-2021-01285-R]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Leonardo S.p.a. Model AB139 and AW139 helicopters. This proposed AD was prompted by a large crack detected on the tail gearbox (TGB) fitting during a scheduled inspection and the determination that certain TGB fittings are required to be inspected by the use of a borescope. This proposed AD would require a one-time borescope inspection of certain part-numbered TGB fittings, and depending on the inspection results, removing the affected part from service and replacing with an airworthy part, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For EASA material that is proposed for IBR in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find the EASA material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0283.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0283; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the EASA AD, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0283; Project Identifier MCAI-2021-01285-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0259, dated November 17, 2021 and corrected November 22, 2021 (EASA AD 2021-0259), to correct an unsafe condition for Leonardo S.p.A. Helicopters, formerly Finmeccanica S.p.A, AgustaWestland S.p.A., Agusta S.p.A.; and AgustaWestland Philadelphia Corporation, formerly Agusta Aerospace Corporation, Model AB139 and AW139 helicopters, all serial numbers.

EASA advises that during a scheduled inspection of a Model AW139 helicopter, a large crack was detected on the inner forward-right side of TGB fitting part number 3G5351A01151. EASA further advises that investigation results determined previous

inspections on the inner-right side of the TGB fitting were accomplished without the use of a borescope. The FAA is proposing this AD to detect cracks on the TGB fitting. The unsafe condition, if not addressed, could result in crack propagation up to a critical length, reduced load capability of the TGB and tail rotor, and subsequent reduced control of the helicopter. See EASA AD 2021-0259 for additional background information.

Related Service Information Under 1 CFR Part 51

EASA AD 2021-0259 specifies procedures, within the applicable compliance times, for a one-time borescope inspection of certain TGB fittings for a crack or any discrepancy, and replacement of an affected part with a new part as specified in the manufacturer's service information.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA also reviewed Leonardo Helicopters Alert Service Bulletin No.139-686, dated November 8, 2021 (ASB 139-686). This service information specifies procedures for borescope inspecting the right-hand and forward parts of certain TGB fittings for any cracks or damage and replacing the TGB fitting with a new one, if any cracks or damage are detected. ASB 139-686 also specifies procedures for reporting inspection results if a crack or discrepancy is detected.

FAA's Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of the same type designs.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in EASA AD 2021-0259, described previously, as incorporated by reference, except for any

differences identified as exceptions in the regulatory text of this proposed AD and except as discussed under “Differences Between this Proposed AD and EASA AD 2021-0259.”

Explanation of Required Compliance Information

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2021-0259 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2021-0259 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in EASA AD 2021-0259 does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in EASA AD 2021-0259. Service information referenced in EASA AD 2021-0259 for compliance will be available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0283 after the FAA final rule is published.

Differences Between this Proposed AD and EASA AD 2021-0259

EASA AD 2021-0259 applies to Model AB139 and AW139 helicopters, all serial numbers, whereas this proposed AD would only apply to Model AB139 and AW139 helicopters with certain part-numbered TGB fittings installed. This proposed AD would not require compliance with paragraph (3) of EASA AD 2021-0259.

Service information referenced in EASA AD 2021-0259 specifies that if any crack or damage is found, replace the damaged TGB fitting with a new one, whereas this proposed AD would require before further flight, removing the affected TGB fitting from service and replacing with an airworthy part.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 129 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Borescope inspecting the TGB fitting for a crack and any discrepancy (i.e., damage) would take about 4 work-hours for an estimated cost of \$340 per helicopter and \$43,860 for the U.S. fleet.

Replacing the TGB fitting with an airworthy TGB fitting would take about 36 work-hours and parts would cost about \$6,650 for an estimated cost of \$9,710 per replacement.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national

Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Leonardo S.p.a.: Docket No. FAA-2022-0283; Project Identifier MCAI-2021-01285-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Leonardo S.p.a. Model AB139 and AW139 helicopters, certificated in any category, with an affected part as identified in European Union Aviation Safety Agency (EASA) AD 2021-0259, dated November 17, 2021, and corrected November 22, 2021 (EASA AD 2021-0259).

(d) Subject

Joint Aircraft Service Component (JASC) Code: 5300, Fuselage Structure.

(e) Unsafe Condition

This AD was prompted by a large crack detected on the tail gearbox (TGB) fitting during a scheduled inspection and the determination that certain TGB fittings are required to be inspected by the use of a borescope. The FAA is issuing this AD to detect cracks on the TGB fitting. The unsafe condition, if not addressed, could result in crack propagation up to a critical length, reduced load capability of the TGB and tail rotor, and subsequent reduced control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2021-0259.

(h) Exceptions to EASA AD 2021-0259

(1) Where EASA AD 2021-0259 requires compliance in terms of flight hours (FH), this AD requires using hours time-in-service.

(2) Where EASA AD 2021-0259 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where paragraph (1) of EASA AD 2021-0259 specifies “inspect, using a borescope, the affected part in accordance with the instructions of Section 3 Part I of the ASB,” for this AD replace “in accordance with the instructions of Section 3 Part I of the ASB” with “in accordance with the Accomplishment Instructions, Section 3 Part I, paragraphs 5. through 5.5 of the ASB.”

(4) Where paragraph (2) of EASA AD 2021-0259 specifies “if, during the inspection as required by paragraph (1) this AD, a crack or any discrepancy is detected, replace the affected part in accordance with the instructions of Section 3 Part II of the ASB,” this AD requires before further flight, removing the TGB fitting from service and replacing with an airworthy part, if any crack or discrepancy is detected. For this AD, discrepancies include damage, which includes scratches and dents on the outer surfaces

of the forward and right-hand sides of the TGB fitting above the horizontal row of fastener holes. The instructions specified in paragraph (2) of EASA AD 2021-0259 are for reference only and are not required for the replacement required by this paragraph.

(5) Where paragraph (4) of EASA AD 2021-0259 allows (re)installing an affected part provided it is inspected as required by paragraph (1) of EASA AD 2021-0259, for this AD, the inspected part cannot be (re)installed if any crack or discrepancy is detected.

(6) This AD does not mandate compliance with paragraph (3) of EASA AD 2021-0259.

(7) This AD does not mandate compliance with the “Remarks” section of EASA AD 2021-0259.

(i) Special Flight Permit

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199, provided no passengers are onboard.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

(1) For EASA AD 2021-0259, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817)

222-5110. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0283.

(2) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

Issued on March 10, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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